

ABSTRACT OF THE DISCLOSURE

A pair of reference portions 20 and 20 is brought into contact with an internal peripheral surface 11 of the vicinity of both side end portions of a tubular body 10. The tubular body 10 is rotated such that contact portions where the tubular body 10 and the pair of reference portions 20 and 20 contact move on the internal peripheral surface 11 in a circumferential direction of the tubular body 10 with positions of the pair of reference portions 20 and 20 fixed. The radial displacement of an external peripheral surface 12 of the tubular body 10 caused by the rotation of the tubular body 10 at at least one position 31 and 32 of an external side of the tubular element 10 is detected, wherein the at least one position is fixed relative to the circumferential direction of the tubular element 10.